

26196

S/081/61/000/012/023/028

Production of fuels for gas and turbine ... B103/B202

field plants (naturnyye ustanovki): mazout of the Anastasiyevskiy petroleum and its mixtures with the kerosene gas oil fractions of Achalukskiy (80 : 20), Ozek-Suyatskiy (85-15), and Turkmenskiy (80 : 20) petroleum, mixture of the Groznyy cracking residue with sulfur-containing cracking kerosene (75 : 25) and the distillate of contact coking of asphalt from which gasoline had been removed and to which 1,5% of Groznyy cracking residue had been added in order to lower the solidification point. [Abstracter's note: Complete translation.]

Card 2/2

RESHETNIK, G.; ALESHIN, V., gornyy master-inspektor; TSAPANA, A., brigadir;  
DENEZHKO, S., zven'yevoy sutochnoy kompleksnoy brigady

Let us not forget about the main thing. Sov.shakht. 12 no.12:19-20  
D '63. (MIRA 17:3)

1. Nachal'nik shakhty No.1-2 "Novaya Golubovka" (for Reshetnik).

SHEVCHENKO, V.D.; PYSLYAR, V.G.; DENEZHNYY, D.T.; BOYCDEV, X.N.

Device for filling vessels with lubricating greases. Trudy  
BONMZ no.1:7-11 '63. (MIRA 16:6)

(Lubrication and lubricants)

DENEZHNY, P.

DUDCHENKO, A.; STISKIN, G., prepodavatel' spetsial'noy tekhnologii;  
DENEZHNY, P., starshiy master.

Teaching methods in technical schools. Prof.-tekhn. obr. 14  
no.1:10-13 Ja '57. (MLRA 10:2)

1. Direktor tekhnicheskogo uchilishcha no.3, g. Dnepropetrovsk  
(for Dudchenko).  
(Technical education)

DNEZHNYY, P., SARANA, V., master proizvodstvennogo obucheniya.

A needed album. Prof.-tekhn. obr. 17 no.7:31 Jl '60. (MIRA 13:8)

1. Zamestitel' direktora po uchebno-proizvodstvennoy rabote  
tekhnicheskogo uchilishcha No.3 (Dnepropetrovsk) (for Dnezhnyy).  
(Tools)

L 35975-66 EWT(m)/EWP(t)/ETI IJP(c) JD  
ACC NR: AP6016043 (A)

SOURCE CODE: UR/0185/66/011/005/0507/0510

AUTHORS: Den'ha, E. M. -- Den'ga, E. M.; Buhriyenko, V. I. -- Bugriyenko,  
V. I.; Rvachov, O. L. -- Rvachev, A. L.

ORG: Odessa Polytechnic Institute (Odes'kyy politekhnichnyy instytut)

TITLE: Photoconductivity mechanism of sintered films with a cadmium  
sulfide base

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 5, 1966, 507-510

TOPTIC TAGS: cadmium sulfide, photoelectric property, photoconductivity,  
photosensitivity, ~~cadmium sulfide film~~ Semiconducting Film

ABSTRACT: Photoelectric properties of sintered films with a cadmium sulfide base have been investigated. It is shown that the photoconductivity of coagulated films is determined by the volume of cadmium sulfide microcrystals. Great photosensitivity of the films is attainable only within a narrow temperature range of sintering, which in some cases reaches  $10^{10}$ . Samples with high stable photosensitivity in the UV spectral zone (350--420 nm) were obtained. Orig. art. has: 2 figures.  
[NT]

SUB CODE: 11, 20 / SUBM DATE: 13Jul65 / ORIG REF: 003 / OTHER REF: 007  
nd

NIKOL'SKAYA, Ye.B.; DEN'GA, V.V.; IVANENKO, E.A.; POLOVA, I.V.

Effect of temperature on the activity of alkaline phosphatase  
irradiated with Co<sup>60</sup> gamma rays. Radiobiologija 5 no.3:264-  
465 '65. (MIREA 18:7)

1. Leningradskiy sanitarno-gigienicheskij meditsinskij institut,  
i Leningradskaya klinicheskaya bol'nitsa imeni Mechnikova.

DENGEL, V., inz.; ZENC, M., inz.

Some results of the research on extracting coal in the shaft pillar in the Jan Maria Coal Mine. Uhli 4 no.7:227-231 J1 '62.

1. Vedeckovy zkušený uhelny ustav, Ostrava-Radvanice.

DENGEL, V., inz.; ZENC, M., inz.

Results of the ground motion and deformation measurement in upcast  
shaft undermining. Uhli 6 no.9:295-300 S '64.

1. Scientific Research Institute of Coal, Ostrava-Radvanice.

ZENC, Milos, inz.; DENGEL, Vilibald, inz.

Depth measurement by the NASM-4B geodimeter. Rudy 13 no.3:84-  
88 Mr '65.

1. Scientific Research Institute of Coal, Ostrava-Radvanice.

MOKSHANTSEV, K.B.; GORNSHTEYN, D.K.; GUSEV, G.S.; DEN'GIN, E.V.;  
SHTEKH, G.I.; KOSYGIN, Yu.A., otv. red.

[Tectonic pattern of the Yakut A.S.S.R.] Tektonicheskoe  
stroenie IAkutskoi ASSR. [By] K.B.Mokshantsev i dr. Mo-  
skva, Nauka, 1964. 289 p. (MIRA 18:2)

1. Akademiya nauk SSSR. Yakutskiy filial, Yakutsk.
2. Chlen-korrespondent AN SSSR (for Kosygin).

SOV/128-58-11-8/24

AUTHORS: Noskov, B.A., Rozenberg, Yu.G., Tsukerman, S.I., Den'gin, I.N.

TITLE: A Coke-Gas Cupola Furnace (Koksogazovaya vagranka)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 11, pp 14-15 (USSR)

ABSTRACT: The use of natural gas in cupola smelting leads to reduced coke expenses. Experiments carried out at the Khar'kovskiy elektromekhanicheskiy zavod (Khar'kov Electromechanical Plant) proved that the successful use of gas and coke depends on proper gas burning conditions, i.e. on the design of burners and their position in the cupola. It was stated that good results can be obtained by placing the burners above the tuyeres. Further investigations will be concentrated on determining the optimum dimensions of the distance between the burner axes and the tuyeres. The information includes a description of a cupola where normal conditions for gas burning and reduced coke expenses were obtained by reducing the number of tuyeres from 6 to 4. A new improved

Card 1/2

A Coke-Gas Cupola Furnace

SOV/128-58-11-8-24

cupola design, now being installed, will make possible a further reduction in coke expense by a change in air distribution. There are 3 diagrams and 1 photo.

1. Blast furnaces--Equipment
2. Blast furnaces--Operation
3. Natural gas--Performance

Card 2/2

DEN'GIN, I. N.

Cand Tech Sci - (diss) "Smelting of cast iron in the cupola furnace with the use of natural gas." Gor'kiy, 1961. 16 pp; (Ministry of Higher and Secondary Specialist Education USSR, Gor'kiy Polytechnic Inst imeni A. A. Zhdanov, Chair of "Mass Production"); 120 copies; free; list of author's works at end of text; (KL, 7-61 sup, 235)

DEN'GIN, I.N.; KASHIRSKIY, A.V.; NOSKOV, B.A.

Relation between hydrogen content in the furnace-top gas of a coke-and-gas cupola and in the pig iron being melted. Izv. vys. ucheb. zav.; chern. met. 6 no.6:168-171 '63. (MIRA 16:8)

1. Khar'kovskiy politekhnicheskiy institut.  
(Cast iron--Hydrogen content) (Gases--Analysis)

DEN'IN, I.N.; FEDOROV, P.A.; FEFERIN, V.F.; TROKHIMOV, N.I.

Gas furnace for secondary melting of cast iron. Inzhenernoe  
no. 3: 12-16. Noyabr' 1964.  
(TUSA 17:11)

NOSKOV, Boris Alekseyevich, kand. tekhn. nauk; DEN'GIN, Igor'  
Nikolayevich, kand. tekhn. nauk; TARASENKO, V.S., inzh.,  
retsenzent

[Using natural gas for the melting of cast iron] Primenenie  
prirodnogo gaza pri vtorichnoi plavke chuguna. Kiev,  
Tekhnika, 1964. 114 p. (MIRA 17:8)

LOPUKHOV, M.A., DEN'GIN, N.Ya., veterinarnyy sel'dshch

Chlorophos in the control of mites and insects. Veterinarnika  
41 no.6:111-112 Je '64. (MIRA 18:6)

1. Glavnnyy veterinarnyy vrach sovkhosa "Tyul'kubasskiy",  
Yuzhno-Kazakhstanskoy oblasti.

SOV-115-58-3-24/41

AUTHORS: Gol'dreyer, I.G., and Den'gin, V.Yu.

TITLE: Logometering the Pulse Levels with Inertia Voltage Stabilizers (Logometrirovaniye urovney impul'sov s pomoshch'yu inertsionnykh stabilizatorov napryazheniya)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 3, pp 63 - 69 (USSR)

ABSTRACT: Designing electronic devices for measuring small non-electric values is difficult because of the instability of sensitive elements like photoelements, photomultipliers, etc., as well as of the amplifying-and-converting channel units. All such elements are usually periodically calibrated to increase the accuracy, but the parameters are capable of change within a few minutes. Single-channel pulse devices measuring the relation between the measured and the reference signal are more reliable. A new method of setting up contactless single-channel electronic pulse system with the use of thermistors has been suggested previously by Gol'-dreyer [Ref. 1] and is further developed and generalized in this article. The work of the logometer is described and it is proved by reasoning and calculations that the same block diagram (Fig. 1) of it, with slight modifications, can serve for measuring the level relation of two pulses of

Card 1/2

SOV-115-58-3-24/41

Logometering the Pulse Levels with Inertia Voltage Stabilizers

any duration and within a wide range, i.e. that the method is suited for extensive application in measurement engineering. OKB Ministerstva geologii i okhrany nedr SSSR (OKB of the Ministry of Geology and Mineral Resources Preservation of USSR) has developed a photoelectric photometer, "FF-1", based on the method of measuring the relation in a range of  $1 \frac{1}{k} 7$  (where "k" is the relation of the second (low) pulse level to the level of the first (high) pulse), at possible 200% instability of the input pulse level, with an accuracy of 1.5%. There are 8 diagrams, 9 graphs, 2 tables and 3 Soviet references.

1. Electricity--Measurement    2. Laboratory equipment--Applications

Card 2/2

DEN'GIN, Muriy  
Voskresenskoye zolotorudnoye mestorozhdeniye v Zapadnom Zabaykal'ye  
/Gold ore deposit of Voskresensk in west Trans-Baikalia/  
P. 79-104  
"Literatura": P. 103-104  
English summary: P. 104  
Appears in "Izvestiya Geologicheskogo Komiteta," 1929, v. 48, no. 4,  
pub. by Akademiya Nauk, SSR. Leningrad. Geologicheskiy Komitet.  
So: 139N/5  
731.1  
.D3

VITTENBURG, Pavel Vladimirovich; DEN'GIN, Yu.P., red.; TOKAREVA,  
T.N., ved. red.

[Practical handbook for geological engineers] Prakticheskoe  
rukovodstvo dlja tekhnikov-geologov. Izd.2., perer. i dop.  
Leningrad, "Nedra", 1964. 486 p. (MIRA 17:8)

DEN'GINA, A.F.

Method of oxygen therapy in whooping cough and its complications.  
Sov.med. 22 no.10:109-113 O '58 (MIRA 11:11)

1. Iz infektsionnogo otdela (nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR, zasluzhenyy deyatel' nauki prof. A.I. Dobrokhотова [deceased]), Instituta pediatrii AMN SSSR (dir. -chlen-korrespondent AMN SSSR prof. O.D. Sokolova-Ponomareva) na baze 2-y Klinicheskoy bol'nitsy imeni I.V. Rusakova (glavnyy vrach - zasluzhennyy vrach RSFSR V.A. Krushkov).

(WHOOPING COUGH, ther.  
oxygen ther., compl. (Rus))  
(OXYGEN, ther. use  
whooping cough, compl. (Rus))

DEN'GINA, A. F., Cand of Med Sci -- (diss) "Influence of Oxygen Therapy  
on the Course of Whooping Cough and its Complications," Moscow, 1959  
15 pp (Institute of Pediatrics, Acad Med Sci USSR) (KL, 1-60, 125)

DEN'GINA, A.F.

Oxygen therapy in whooping cough and its complications.  
Pediatriia 37 no.6:48-54 Je '59. (MIEA 12:9)

1. Iz otdela ostrykh detekikh infektsiy (nauchnyy rukovoditel' -  
chlen-korrespondent AMN SSSR zasluzhennyy deyatel' nauki prof.  
A.I.Dobrokhотова [deceased]) Instituta pediatrii AMN SSSR (dir. -  
chlen-korrespondent AMN SSSR prof.O.D.Sokolova-Ponomareva).

(OXYGEN, ther. use,  
whooping cough, compl. (Rus))  
(WHOOPING COUGH, ther.  
oxygen, compl. (Rus))

BRAGINSKAYA, V.P.; DEN'GINA, A.F.

Effect of oxygen therapy on the cardiovascular system in  
whooping cough and its complications. Pediatrilia 38 no.6:  
41-47 Je '60. (MIRA 13:12)  
(WHOOPING COUGH) (OXYGEN THERAPY)  
(CARDIOVASCULAR SYSTEM)

DEN'GINA, N.D.

COUNTRY	: USSR	V
CATEGORY	: Pharmacology and Toxicology. Analgesics	
ABS. JOUR.	: RZhBiol., No. 5 1959, №. 23012	
AUTHOR	: Sangaylo, A.K.; Den'gina, N.D.; Gorbashova, M.P.	
INST.	:	
TITLE	: On the Combined Action of Analgesics with Aminazin	
ORIG. PUB.	: Farmakol. i toksikologiya, 1958, 21, No 3, 10-12	
ABSTRACT	In experiments on rats by the method of pinching the tail, the analgesic action (AA) of aminazin (AM) manifested itself, beginning with the subcutaneous administration of 5 mg/kg (threshold dose) of AM. With the increase of the dosage of AM to 10-20 mg/kg, the intensity and duration of AA increased. AM intensified the AA of pyramidon to a greater degree than that of analgin.-- From the authors' summary	
Card:	1/1	

FA 78T22

DEN'GINA, R. S.

USSR/Engineering  
Diving Equipment  
Diving

Apr 1948

"Utilization of Diving Technique in Hydrobiology,"  
R. S. Den'gina, 1 p  
Baikal Limnological Station, AS USSR  
"Priroda" No 4

Describes special apparatus to collect benthonic specimens: lowered and raised by windlass, various appliances manipulated by diver. Successfully used in Lake Baikal.

78T22

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310120004-0

DEN'GINA, R. S.

36411. Novyy antibiotik. (Aureomitsin) Priroda, 1949, No. 11, S. 55-56

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000310120004-0"

DEN'GINA, R.S.

27660

Materialy k izucheniyu bentofauny pridatoch--noy sistemy  
nizhney kury. trudy zool. in - ta (akad. nauk azerbaydzh.  
SSR), T. XIII, 1959, s. 97-114. ----resyume na azerbaydzh.  
yaz. --Bibliogr: 13 nazv.

SO: Knishnaya Letopis, Vol. 1, 1955

DEN'GINA, R. S.

USSR/Geophysics - Irrigation

Dec 50

"Work of the Laboratory of Limnology on the Aral Sea," R. S. Den'gina

"Vest Ak Nauk SSSR" Vol XX, No 12, pp 96,97

Discusses a monograph, being part of a general descriptive study of lakes in the USSR. Stresses results of the irrigation net along the Amu-Darya and Syr-Darya rivers and its effect on fishery, muskrat hunting and navigation. A geographical aerial survey of the area has been carried out.

213T88

~~DEPARTMENT OF DEFENSE~~

Data on the hydrology and zoobenthos of Muynak Bay in the Aral  
Sea. Trudy Lab. ozeroved. 3:47-66 '54. (MIRA 8:2)  
(Muynak Bay--Hydrology)(Muynak Bay--Marine fauna)

USSR / General Biology - General Hydrobiology.

B

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38106.

Author : Dengina, R. S.

Inst : Not given.

Title : Results of Hydrobiological Studies of Lakes on  
the Northwestern Portion of the Amu-Dary Delta.

Orig Pub: Tr. Labor. ozeroved., 1957, 4, 269-305.

Abstract: Seven lakes of the Amu-Dary Delta were studied  
from the standpoint of hydrology, hydrochemistry,  
and hydrobiology. A sweet-water complex of lake-  
bottom fauna is characteristic of internal lakes,  
and a salt-water one for border lakes. In order  
*to improve spawning beds in these lakes and to*  
*improve environments and population of muskrats,*  
it is necessary to conduct biological ameliora-  
tion.

Card 1/1

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DEN'GINA, R.S.

DEN'GINA, R.S.

Hydrobiological survey of the Adzhibai Bay of the Aral Sea in 1953.  
Trudy Lab. ozeroved. 4:306-348 '57. (MIRA 10:9)  
(Aral Sea--Fresh water biology)

DEN'GINA, R.S.

LOPATIN, G.V.; DEN'GINA, R.S.; YEGOROV, V.V.; KOVDA, V.A., otvetstvennyy  
red.; TSVETKOV, N.V., red. izd-va; SMIRNOVA, A.V., tekhn. red.

[Delta of the Amu Darya] Del'ta Amu-Dar'i. Moskva, Izd-vo Akad.  
nauk SSSR, 1958. 156 p. (MIRA 1117)

1. Chlen-korrespondent Akademii nauk SSSR (for Kovda)  
(Amu Darya Delta)

DEN'GINA, R.S.

Benthos of the Karabayli Archipelago in the Aral Sea. Trudy Lab.  
oseroved, 8:23-83 '59. (MIRA 13:2)  
(Karabayli Archipelago--Hydrobiology)

DEN'GINA, R.S.

Variation of hydrochemical conditions in the outer delta of the  
Amu Darya and dynamics of benthic biomass in summer. Trudy Lab.  
ozeroved. 8:234-255 '59. (MIRA 13:2)  
(Myynak Bay--Hydrology)

DEN'GINA, R.S.

Zooplankton in the skerry section of Lake Ladoga. Trudy Lab.  
czeroved. 12:256-266 '61. (MIRA 15:3)  
(Ladoga, Lake--Zooplankton)

DEN'GINA, R.S., starshiy nauchnyy sotrudnik

Protect Lake Ladoga against pollution. Bum.prom. 37 no.9:  
14-16 S '62. (MIRA 15:9)

1. Laboratoriya ozerovedeniya AN SSSR.  
(Ladoga, Lake—Water—Pollution) (Sewage--Purification)

ACCESSION NR: AR4022450

S/0058/64/000/001/E008/E008

SOURCE: RZh. Fizika, Abs. 1E72

AUTHOR: Ayvazova, A. A.; Den'gina, S. V.; Nosenko, B. M.

TITLE: Orientation order in para-dichloro-benzene near the crystallization point

CITED SOURCE: Nauchn. tr. Tashkentsk. un-t, vy\*p. 221, 1963, 61-64

TOPIC TAGS: paradichlorobenzene, orientation order, crystallization point, scattered light depolarization, molecule orientation, precrystallization region, depolarization temperature dependence

TRANSLATION: The temperature dependence of the degree of depolarization of scattered light in  $n\text{-C}_6\text{H}_4\text{Cl}_2$  is investigated. It is found that an anomalously steep temperature dependence occurs in the pre-crystallization region (53-60°C), this being attributed to the change ~~XXX~~ in the mutual orientation of the molecules.

Card 1/

DEN'GOV, A.; STOGOV, I.

To a more difficult job. MTO no.9:23-24 S '59.  
(MIRA 13:1)

1. Zamestritel' predsedatelya proizvodstvenno-massovoy komissii  
zavodskogo komiteta Kalininskogo vagonostroitel'nogo zavoda  
(for Den'gov). 2. Chlen redkollegii gazety "Vagonostroitel',"  
g.Kalinin (for Stogov).  
(Kalinin--Efficiency, Industrial)

U.

DENGYEL, Imre, ország irányító mérnök

Damages stemming from quality defects in the field of the construction industry. Építés szemle 8 no.4:120-124 '65.

1. Quality Testing Institute of Construction Industry of the Ministry of Construction, Budapest.

GRIN, E.I.; DENIC, M.

Investigations of human blood griseofulvin levels and their  
relation to the curative effect in tinea capitis. Acta med.  
Iugosl. 19 no.1:62-69 '65.

DENVER			
1747	REACTION OF THE SUPRARENAL GLAND TO X-IRRADIATION	X-IRRADIATION	1-Jewett
SON: William M. Lubetkin, Brillant, Hirschberg and Lubetkin G. Gruber. Bull. Inst. Nucl. Sci. Belgrade 7, 133-8 (1957) Mr. (in French) The suprarenal of a rat irradiated with 130 r of x rays responded with a drop in the amount of ascorbic acid and cholesterol. The position of the suprarenal gland subjected to sublethal x radiation was studied. (ir-suth)			any 7/8

BERIC, Berislav, doc, dr.; VELJKOVIC, Milos, asist. d-r; DENIC, Miodrag,  
Mr.ph.

Evaluation of Misischia's reaction in early diagnosis of pregnancy.  
Med.arh., Sarajevo 14 no.7:145-148 Ja '61.

1. Ginekolosko-akuserska klinika Medicinskog fakulteta u Sarajevu  
(Sef:prof. d-r Milenko Beeric)  
(PREGNANCY TESTS)

MLETIC, B.; DENIC, M.; KUCAN, Z.; ZAJEC, Lj.

Effect of ionizing radiations on the metabolism of nucleic acids in  
Escherichia coli. Voj.san.pregl. 18 no.2:143-147 F '61.

1. Institut "Ruder Boskovic" u Zagrebu, Radioloski odjel.

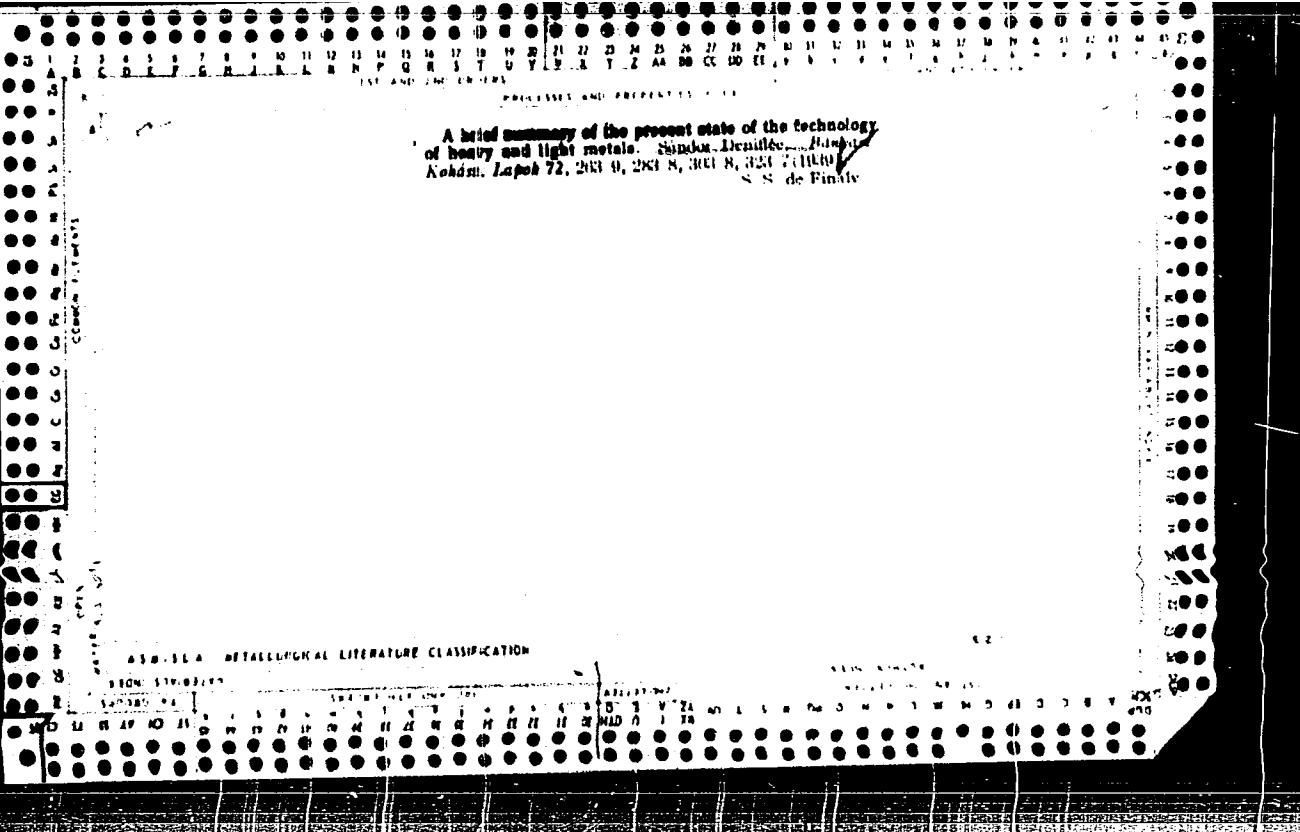
(ESCHERICHIA COLI radiation eff)  
(NUCLEIC ACIDS metab)

DENICHENKO, I.M. [Denychenko, I.M.]

On the right road. Mekh.sil'.hosp. 10 no.1:6-7 Ja '59.

(MIRA 12:4)

1. Nachal'nik kolhoza "Doroga k kommunizmu," Shakhtarskogo rayona,  
Stalinskoy oblasti.  
(Collective farms)                   (Agricultural machinery)



CA

9

**Aluminum and its applications.** Sándor Denéléc.  
*Teknika* (Budapest) 22, 107-17 (1941).—The discovery  
 and manuf. of Al and its present fields of application  
 are described. The first Al furnace in Hungary was con-  
 structed in 1934 at Csépel. S. S. de Finálv

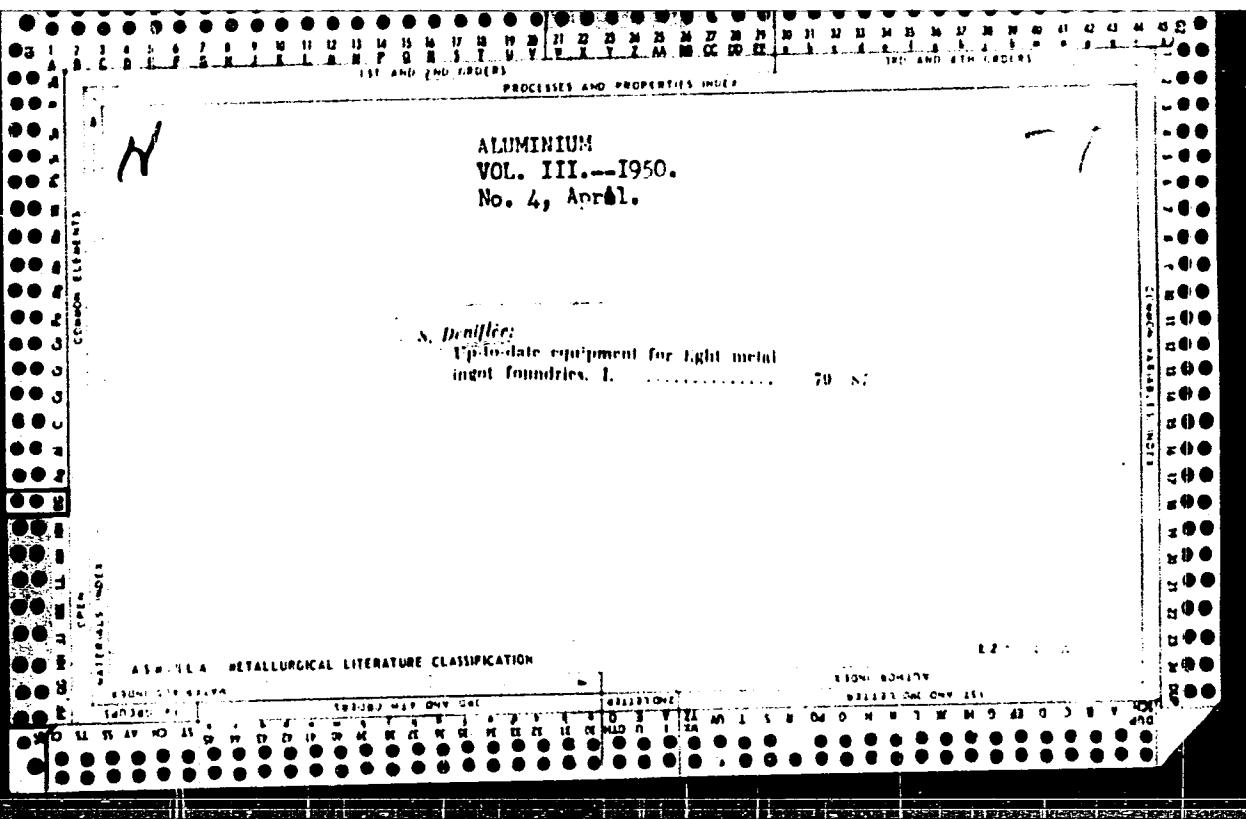
## ASMLLA METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION			SUBDIVISIONS		EDITION NUMBER	
GENERAL	TOPIC	TYPE	COL. NO.	EDITION	MONTH	YEAR
0 1 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1	0 1 2 3 4 5 6 7 8 9 1 0 1 1

*M*

**Aluminium of 99.99% Purity.** Sándor Deniliq, *J. Aluminium* (Budapest), 1950, 2, (2-3), 74-81.—[In Hungarian]. A high degree of purity endows metals with valuable properties, and modern metallurgical methods have made the economical production of such metals possible on a commercial scale. D. surveys the older methods of producing high-purity aluminium (Hooper, Bette, Aluminium Industrie A.G.), and describes as the most successful the method of Gadeau used by the Compagnie Alus, Fruges et Camargue. Gadeau's process takes the form of electrolysis between carbon electrodes (anode uppermost) of 23%  $\text{AlF}_3$  + 17%  $\text{NaF}$  + 60%  $\text{BaF}_2$ , in a magnesite-lined cell at 750°-780° C. The carbon anode, inserted into the bottom, is covered with a molten layer of eutectic aluminium-copper alloy. At 7 V. and 40 amp./dm.<sup>2</sup> the cathode efficiency is 97%. 22 kWh. are needed for the production of 1 kg. of aluminium of over 99.99% purity. The properties of super-pure aluminium are tabulated and the influence of small amounts of impurities on these properties is discussed and illustrated by diagrams. The increased electrical conductivity and the very high corrosion-resistance are in some respects offset by the less favourable mechanical properties of the highly refined material. Nevertheless, in the packing of foodstuffs and in the making of reflectors, and for heat-insulation purposes, the purer metal has a great future. Another use of super-pure aluminium is the coating of light metal structures with a thin protective layer by spraying by the Schoop process.—E. B.

*Sept. 1, 1950*



met. abstract

15

Production Methods in the Casting of Light-Metal Slabs.  
Sandor Deniske (Aluminum (Budapest), 1951, 8, (4), 79-  
87; (5), 119-120; (6), 130-133; (7), 161-168; (8), 210-  
215).—[In Hungarian]. A comprehensive review of the  
types of furnace used, the mech. action of pouring, the  
solidification of castings, and the latest developments in the  
technique of continuous casting. 18 ref.—I. S. M.

DENIFLEE, S.

DENIFLEE, S. Winding copper turbogenerators containing silver. n. 129.

Vol. 13, no. 1/4, 1954, Budapest, Hungary KOZLEMENYEI

SO: Monthly List of East European Accessions, (EEAL), U.S., Vol. 5, No. 3,  
March, 1956

DENIKAYEV, R.Z.; KOLOMEYETS, Ye.V.; KOZAK, L.V.; MIRKIN, L.A.

Using a neutron detector. Geomag. i aer. 2 no.5:1010-1011  
S-0 '62. (MIRA 15:10)

1. Kazakhskiy gosudarstvennyy universitet.  
(Cosmic rays) (Neutrons--Measurement)

L 27B97-66	EWT(m)/FCC/T	IJP(c)
ACC NR:	AP5024642	SOURCE CODE: UR/0048/65/029/009/1719/1721
AUTHOR: Babayev, M.K.; Deniksev, R.Z.; Vosel'yanov, Yu. A.; Zukov, Ye. I.; Lukin, Yu. T.; Murzin, V.S.; Khomenko, G.S.		
ORG:	none	
TITLE: Fluctuation in the number of particles in an electromagnetic shower at 110 BeV /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/		
SOURCE: AN SSSR, Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1719-1721		
TOPIC TAGS: secondary cosmic ray, cosmic ray shower, electron, photon, iron		
ABSTRACT: Electron-photon showers were investigated in an ionization calorimeter consisting of the following components in order from the top: 13 cm C, 3 cm Fe, 8 trays of ionization chambers each followed by 5 cm Fe, 2 trays of chambers with no absorber between, 1 cm Fe, 150 g/cm <sup>2</sup> C, 3 cm Pb, and two trays of chambers separated and followed by 2 cm Pb. Showers initiated by cosmic ray particles were regarded as electron-photon showers if they produced ionization in at least one of the two uppermost trays and no ionization in the two trays beneath the large carbon absorber. Of 334 electron-photon showers thus identified, 152 had energies between 100 and 200 BeV. The ionization versus depth curves for these showers were normalized to a primary energy of 110		
Card	1/2	

L 27897-66

ACC NR: AP5024642

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BeV and averaged, and the average curve was compared with theoretical curves calculated for different assumed values of the radiation length in iron. Good agreement was obtained with the curve based on a radiation length of  $12.6 \text{ g/cm}^2$ . This value of the radiation length in iron was confirmed by comparing the observed depth of maximum shower development with calculated values. The fluctuation (ratio of the mean square to the square of the mean) in the number of particles in the showers as a function of depth was compared with the calculated curve of N.M.Gerasimova (Zh. eksperim. i teor. fiz., 43, 500 (1962); 44, 240 (1963)). Good agreement was found at depths less than 23 radiation units, but at greater depths the observed fluctuations were much less than the calculated ones. In conclusion, the authors express their gratitude to Zh.S. Tukibayev for valuable discussions. Orig. art. has: 1 formula, 3 figures, and 1 table.

SUB CODE: MP/ SURM DATE: 00/

ORIG REF: 004/ OTH REF: 000

Card 2/2 CC

L 4514-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5022841

UR/0000/65/000/000/0280/0282

AUTHOR: Denikayev, R. Z.; Kolomeyets, Ye. V.; Kozak, L. V.; Mirkin, L. A.; Prilepskiy, B. A.; Roshchupkin, V. G.

TITLE: Test operation of the neutron monitor and Mu-meson telescope

SOURCE: Vsesoyuznoye soveshchaniye po kosmofizicheskому napravleniyu issledovaniy kosmicheskikh luchey. 1st, Yakutsk, 1962. Kosmicheskiye luchi i problemy kosmofiziki (Cosmic rays and problems in cosmophysics); trudy soveshchaniya. Novosibirsk, Redizdat Sib. otd. AN SSSR, 1965, 280-282

TOPIC TAGS: cosmic ray measurement, neutron counter, mu meson, cosmic ray telescope, particle counter, error correction

ABSTRACT: The present authors list 10 changes introduced in the neutron monitor of the cosmic ray station of the Kazakh State University, which started operation in 1957 encountered current leakages, various instabilities, and errors in design. The changes listed contributed to an improved operation of the monitor during the last four years. A brief description is given of the design and operation of an azimuthal  $\mu$ -meson telescope intended for continuous registration of the directed intensity of hard cosmic ray components. The device, which was put in operation in 1962, consists of four identical counter sections each

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ACCESSION NR: AT5022841

pair of which registers particles coming from a given zenith angle but from opposite azimuthal directions. "The authors thank senior engineer Yu. Kapitonov for advice and help during the investigation." Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 29Oct64

ENCL: 00

SUB CODE: AA, NP

NO REF SOV: 003

OTHER: 000

CC  
Card 2/2

ACC NR: AP7007077

SOURCE CODE: UR/0048/66/030/010/1602/1603

AUTHOR: Denikayev, R. Z.; Yemel'yanov, Yu. A.; Lukin, Yu. T.; Takibayev, Zh. S.; Khomenko, G. S.

ORG: none

TITLE: Probability of the recording of "Stars" by an ionization calorimeter [Paper presented at the All-Union Conference on Cosmic Radiation Physics, Moscow, 15-20 Nov 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 10, 1966, 1602-1603

TOPIC TAGS: calorimeter, astrophysics, star, neutron, proton, alpha particle, deuteron

SUB CODE: 08

ABSTRACT: Upon interaction of nucleus-reactive particles with matter, there is not only formation of new particles but also fission of nuclei of the target, which is accompanied by the emission of low-energy neutrons, protons, deuterons, and  $\alpha$ -particles: i. e., formation of so-called "starts." The ionization produced by strongly ionizing particles of the stars is added to that due to electrons of the shower and measured, together with the latter, in an ionization calorimeter. On the basis of experimental data obtained on an instrument of the ionization calorimeter type, in which iron was used as an absorber, the contribution of stars to ionization was estimated at  $\sim 10\%$  of the ionization due to the nuclear shower. Orig. art. has: 2 figures and 3 formulas. [JPS: 39,658]

LENSHINA, N.Ya.; DENIKEYEVA, M.F.; IVANOV, V.I.

Oxidation of low molecular weight hydroxyl-containing compounds  
with nitrogen oxides. Izv.AN SSSR.Otd.khim.nauk no.10:1899-1900  
O '61. (MIRA 14:10)

1. Institut organicheskoy khimii im.N.D.Zelinskogo AN SSSR.  
(Hydroxy compounds) (Oxidation)

DENIELEWICZ, Wladyslaw; GORSKI, Ludwik

Artificial radioactive isotopes and their clinical application.  
Polskie arch. med. wewn. 26 no.1:77-101 1956.

1. Z I Kliniki Chorob Wewnetrznych A. M. w Krakowie Kierownik:  
prof. dr. med. L. Tochowicz Krakow, ul. Kopernika 17 I Klin.  
Chor. Wewn. A. M.  
(ISOTOPES  
med. uses. (Pol))

DENIKIEWICZ, WLADEK

ZUROWSKI, Czeslaw; DENIKIEWICZ, Wladyslaw

Fluorescein test in determination of circulation rate in normal subjects. Polski tygod. lek. 12 no.24:924-927 10 June 57.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik:  
prof. dr. Leon Tochowicz. Adres: Krakow, ul. Kopernika 17.  
(BLOOD CIRCULATION, determination,  
fluorescein test (Pol))  
(FLUORESCIN,  
blood circ. rate test (Pol))

DENIKIEWICZ, Wladyslaw  
TOCHOWICZ, Leon; DENIKIEWICZ, Wladyslaw

Serum turbidity in coronary arteriosclerosis. Polskie arch. med.  
wewn. 27 no.4:519-526 1957

1. Z I Kliniki Chorob Wewnętrznych A. M. w Krakowie. Kierownik;  
prof. dr med. L. Tochowicz. Adres: Krakow I Klinika Chorob Wewn  
A. M. Kopernika 17.  
(CORONARY DISEASE, blood in,  
arteriosclerosis, serum turbidity (Pol))

TOCHOWICZ, Leon; PASYK, Stanislaw; DENIKIEWICZ, Wladyslaw

Estimation of the value of the examination of cholesterol and nutritional lipemia in atherosclerosis. Polski tygod. lek.  
15 no.20:737-742 16 My '60.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik:  
prof. dr. Leon Tochowicz.  
(ARTERIOSCLEROSIS blood)  
(CHOLESTEROL blood)  
(LIPIDS blood)

TOCHOWICZ, Leon; PASIK, Stanislaw; DENIKIEWICZ, Wladyslaw

Cholesterol and turbidity of the blood in patients with myocardial infarct and hypertension. Polskie arch.med.wewn. 30 no.7:931-932 '60.

1. Z I Kliniki Chorob Wewnętrznych A.M. w Krakowie Kierownik:  
prof. dr med. L.Tochowicz  
(CHOLESTEROL blood)  
(MYOCARDIAL INFARCT blood)  
(HYPERTENSION blood)

1. DENTIM, N.N.
2. USSR (600)
4. Vitamins
7. Vitamin A content in the liver of grey and black karakul sheep of different ages and in their embryos. Trudy Inst. zool. zhiv. na. ?, 1952
9. Monthly List of Russian Accessions, Library of Congress, March, 1951. Unclassified.

14-57-6-12301  
Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,  
p 84 (USSR)

AUTHORS: Fesenko, N. G., Denin, A. A.

TITLE: Chemical Composition of Water in the Main Don Canal  
and the Lower Don Canal (O khimicheskem sostave vody  
Donskogo magistral'nogo i Nizhne-Donskogo kanalov)

PERIODICAL: Gidrokhim. materialy, 1955, Vol 25, pp 170-175

ABSTRACT: Investigations carried out by the authors in 1952 and  
1953 have shown that water in the canals during the  
first months of their use differed from the water in  
the Teimlyanakoya reservoir which supplies them  
by higher mineral content; this is caused by leech-  
ing of easily soluble salts from the canal bed. The  
content of principal ions has not changed since  
August 1953 through the length of the canal, and dur-  
ing the year the ion content has changed in the same  
way as the content in the water at the lower part of  
Card 1/2

14-57-6-12301

Chemical Composition of Water (Cont.)

the Tsimlyanskoye reservoir. The local water belongs to the bicarbonate calcium group of type II; it is characterized by the absence of  $\text{CO}_3^{2-}$ , and by the small amount of ions  $\text{Na}^+$ ,  $\text{Cl}^-$  and

$\text{SO}_4^{2-}$ .

Card 2/2

O. V. B.

DENIN, A.A.

Deposit of scheelite-bearing skarns. Trudy VITR no.4:218-226  
'61. (MIRA 14:9)  
(Scheelite) (Skarns)

BULGARIA

Lt Col Lyuben DERINSKI, Medical Corps.

"Ileal Perforation from Swallowed Foreign Body, Simulating Acute Appendicitis."

Sofia, Voenno Meditsinsko Delo, Vol 7, No 4, Dec 1962; pp 85-87.

**Abstract:** In a 20-year old man with all the symptoms of acute appendicitis, a 4 cm by 1 cm sharp bone was found impacted in the ileum. The bone had caused 2 small perforations distally from the point of where it impacted. Uneventful recovery. Photograph of specimen; 5 Soviet, 3 Bulgarian and 2 Western references.

1/1

DENINSKI, L.; MERDZHANOV, As.

Indications of venous in intra-osseous phlebography of extremities. Khirurgija 15 no.9/10:983-985 '62.

(ANGIOGRAPHY) (EXTREMITIES)

DENINSKI, L.; MERDZHANOV, As.; NENOV, N.

Our experience with intra-osseous phlebography of diseased extremities, Khirurgiia 15 no.8:691-700 '62.

l. Vissch voennomeditsinski institut. Nachalnik: prof.  
G. Krustinov.

(ANGIOGRAPHY) (LEG)

VASILEV, N.; DENINSKI, L.; POPOV, M.

Repeated surgery on the biliary tract. Khirurgiia 15 no.12:  
1091-1095 '62..

1. Vissz voennomeditsinski institut. Nachalnik: prof.  
G. Krustinov.  
(BILIARY TRACT) (CHOLELITHIASIS)

VASILEV, N., dots; DENINSKI, L.

Multiple disseminated polyposis of the small intestine. Khirurgia  
(Sofiia) 16 no.11:1029-1030 '63.

1. Iz I khirurgichno otделение pri Visshiia voennomeditsinski in-  
stitut, Sofiia.

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VASILEV, N., dotsent; TSANKOV, N.; DENINSKI, L.; CHIFCHIAN, B.; MERDZHANOV, A.

Surgical risk in abdominal surgery in old age. Khirurgia  
17 no.2:209-211 '64.

1. Iz Visshiia voennomeditsinski institut, Sofiia.

DENINSKI, L.; MERDZHANOV, As.

Apropos of the treatment of trophic ulcers of lower extremities.  
Khirurgiia (Sofiia) 18 no.5:524-532 '65.

1. Katedra po voennoprileva khirurgiia (rukovoditel - prof.  
G. Krastinov), Vissh' "veterinarne-meditsinski institut, Sofiia.

DENIS, Boleslaw (Warszawa)

Alive vaccines against Pateurelloses in water fowl. Zesz probl  
post nauk roln nr.33:65-68 '61.

1. Zaklad Technologii i Kontroli Lekow Weterynaryjnych,  
Instytut Weterynarii, Pulawy  
Kierownik: Dr. A. Teklinski

~~REDACTED~~ DENIS, B  
SURNAME, Given Names

Country: Poland

Academic Degrees:

Affiliations: Department of the Technology and Control of Veterinary Drugs  
of the Veterinary Institute (Zaklad Technologii i Kontroli  
Lekow Weterynaryjnych, Instytut Weterynarii), Warsaw;  
Director (Kierownik): Dr Antoni Teklinski

Source: Lublin, Medycyna Weterynaryjna, Vol XVII, No 10, October 1961,  
pp 579-584

Data: "Lyophilisation of Vaccine S-19 Against Infectious Abortions  
of Cows."

Authors:

TEKLINSKI, A, Dr  
KOCHANSKI, J [Academic Degrees not given]  
TERESZCZUKOWA, M [Academic Degrees not given]  
DENIS, B [Academic Degrees not given]

670 981643

2857 Denis, B. D.

Kvoprosu avtomatiz tsii podachi dolota pri burenii neftyanykh skvezhin  
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ts. - (54-56185)

GUBENKO, Tikhon Pavlovich, doktor tekhn.nauk, prof.; DENIS Bogdan Dmitriyevich,  
kand.tekhn.nauk, dotsent; KUZ'MYAK, Boris Danilovich, starshiy  
prepodavatel'

Reviews and bibliography. Izv.vys.ucheb.zav.; elektromekh. 8  
no.8:954-955 '65. (MIRA 18:10)

1. L'vovskiy politekhnicheskiy institut.

DENIS, B.D.; MAZEPA, S.S.; NAKONECHNYY, V.I.

Remote control system of flowing and beam wells in Carpathian  
Mountain Region oil wells. Neft. i gaz. prom. no.3:45-47  
Jl-S '64.  
(MIRA 17:12)

DENISENKO, G. F., kand.tekhn.nauk

Methods of designing filters of porous bronze. Trudy VNIIMASH  
no.3:103-116 '60. (MIRA 13:9)  
(Filter and filtration)

AUTHORS: Butskus, P. F., Denis, G. I. SOV/156-58-1-51/46

TITLE: The Reaction of the Aromatic Amines With N-Cyanogen-Ethylated  $\alpha$ - and  $\beta$ -Amino Acids (Reaktsiya aromaticheskikh aminov s N-tsianetilirovannymi  $\alpha$ - i  $\beta$ -aminokislotami)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 130 - 132 (USSR)

ABSTRACT: In connection with the action of ammonia, hydrazine, and piperidine on the amino acids referred to in the title, the de-cyano-ethylation of the latter takes place (Ref 1). The action of aromatic amines (aniline, p-nitro-aniline, p-toluidine,  $\beta$ -naphthylamine) on N-monocyanogen-ethylated and N,N-dicyano-ethylated  $\alpha$ - and  $\beta$ -amino acids leads to the formation of de-cyano-ethylation products of the latter and to cyano-ethylation products of the aromatic amines - of the  $\beta$ -aryl-amino-propyl-nitriles. Consequently, a transition of the cyanogen-ethyl-group from one compound into another one, i.e. a trans-cyano-ethylation-process (peretsianetilirovaniye) takes place. The reaction of the aromatic amines with N-monocyanogen-ethyl- $\alpha$ -amino acids, with N-monocyanogen-ethyl- $\beta$ -amino-acids and with N,N-dicyano-ethyl- $\beta$ -amino-acids takes place analogously. The

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The Reaction of the Aromatic Amines With N-Cyanogen-Ethylated  $\alpha$ - and  $\beta$ -Amino Acids

SOV/156-58-1-31/46

reaction of aniline with N-cyanoethyl-glycyl glycine and N,N-dicyanoethyl-glycyl glycine leads to the formation of glycyl glycine and an aniline-cyanoethylation-product. All above reactions were carried out in an aqueous solution at 100°. The dicyanoethylated  $\alpha$ -amino acids without solvent split off only one cyanoethyl group with aromatic amines at from 130 to 140° and form mono-cyano-ethyl derivatives. At higher temperatures, the second cyano-ethyl-group is also split off. Resinification takes place, however. There are 1 table and 7 references, 4 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy khimii Vil'nyusskogo Gosudarstvennogo universiteta im.V.Kapsukasa (Chair of Organic Chemistry at the Vil'nyus State University imeni V.Kapsukas)

SUBMITTED: September 16, 1957

Card 2/2

AUTHORS: Butskus, P. F., Denis, G. I. SOV/156-58-4-33/49

TITLE: Cyano-Ethylation of the Aromatic Amines by Acrylonitrile and  $\beta$ -Substituted Propionitriles (Tsianetilirovaniye aromaticheskikh aminov akrilonitriлом i  $\beta$ -zameshchennymi propionitrilemi)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 743-745 (USSR)

ABSTRACT: The interaction of the aromatic amines with acrylonitrile and  $\beta$ -substituted propionitrile in the aqueous phase was investigated. N-cyano-ethylized aromatic amines are formed in this interaction. The cyano-ethylized compounds, their yield and the melting points were investigated. The cyano-ethylation by  $\beta$ -substituted propionitriles was carried out in the following manner: aniline in aqueous phase is added to the  $\beta$ -substituted propionitriles and in the course of 10 hours is treated with a reflux condenser. The reaction mixture is vaporized in vacuum on the water bath. The dry residue is dissolved in hot alcohol under addition of water and it is left to stand for several days. During this time the  $\beta$ -phenyl amine propionitrile formed precipitates. The reaction of the aniline with N-cyano-ethylized compounds under addition of concentrated hydrochloric acid is

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SOV/156-58-4-33/49

Cyano-Ethylation of the Aromatic Amines by Acrylonitrile and  $\beta$ -Substituted Propionitriles

carried out with ethylene cyanchydrin,  $\beta$ -alkoxy propionitrile, and  $\beta$ -dicyano-ethylene-ester with small amounts of soda lye or triethyl-amine. The influence of hydrochloric acid and soda lye in this reaction is of catalytic character. The reaction of aniline with  $\beta$ -phenoxy-propionitrile,  $\beta$ -cyano-ethyl-ethyl-mercaptan and  $\beta$ -chloro-propionitrile is carried out without catalyst. The cyano-ethylation of acrylonitrile in the aqueous phase leads to the formation of  $\beta$ -phenyl amine propionitrile. The cyano-ethylation of p-anisidine and p-toluidine is carried out in a similar manner. There are 1 table and 14 references, 6 of which are Soviet.

ASSOCIATION: Kafedra organicheskoy khimii Vil'nyusskogo gosudarstvennogo universiteta im. V. Kapsukasa (Chair of Organic Chemistry at the Vil'nyus State University imeni V. Kapsukas)

SUBMITTED: April 16, 1958

Card 2/2

S/153/60/003/003/021/036/xx  
B016/B058

AUTHORS: Butskus, P. F., Denis, G. I., Butskene, A. I.

TITLE: Cyanoethylation of Some Amino Acids and Proteins

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimika i khimicheskaya tekhnologiya. 1960; Vol. 3, No. 3,  
pp. 469 - 475

TEXT: The authors report on the cyanoethylation of amino acids and proteins by means of acrylonitrile (AN) and  $\beta$ -chloro propionitrile (CPN). The substances used were:  $\beta$ -amino ethanesulfonic acid (taurine),  $\delta$ -aminovaleric acid and  $\xi$ -aminocaprylic acid. Products of the N-monoc and N,N-dicyano ethylation were obtained thereby;  $\gamma$ -aminobutyric acid was treated with CPN alone. The following substances were also cyanoethylated with AN and CPN: gramicidin C, peptone and proteins (insulin, casein, blood albumin, gelatin, animal gluten, edestin, pea globulin, pepsin and nuclein). Peptone and proteins were cyanoethylated in the aqueous alkaline medium, gramicidin C, however, by means of AN in alcoholic solution. All substances treated are cyanoethylated at the amine

Card 1/3

Cyanoethylation of Some Amino Acids and Proteins

S/53/60/003/003/021/036/xx  
B016/B058

group (see scheme). The authors presume that under the given conditions proteins may also be cyanoethylated at the sulphydryl or hydroxyl group, while the dicyano-ethylation takes place at the amine groups. They don't think it impossible that the two substances AN and CPN may to a certain degree react with other groups of the protein molecule. The authors proved that the initial substances (Table 2) showed an intensive ninhydrin reaction with blue-violet coloring and contained amino nitrogen. Neither thing was the case after cyanoethylation. In the solid state, the products of the cyano-ethylation of most proteins, peptone and gramicidin S form an almost white powder. The authors presume that the cyano-ethylation of amino acids, proteins and peptone by means of CPN proceeds over the phase of AN formation (Ref.2). When heating the products of the N-mono- and N,N-dicyano-ethylation of amino acids with 10% aqueous ammonia solution, these products are decyano-ethylated and produce the initial amino acids. The N-cyano-ethylated amino acids are also decyano-ethylated through the influence of aniline, but besides, the product of trans-cyano-ethylation:  $\beta$ -phenylaminopropenitrile:

Card 2/3

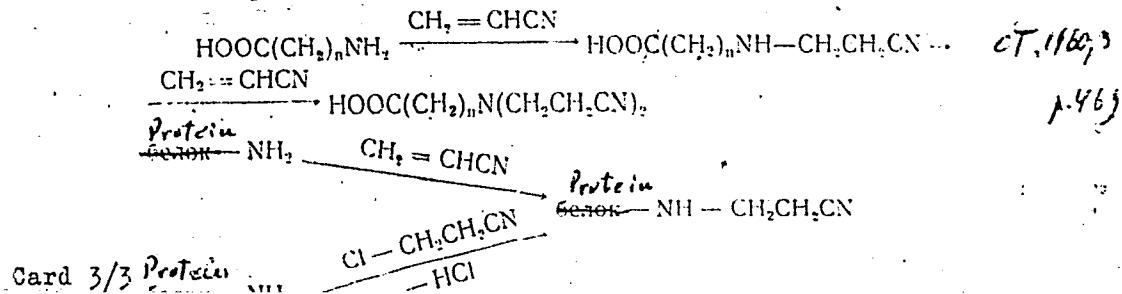
Cyanoethylation of Some Amino Acids and  
Proteins

S/155/60/003/003/021/036/xx  
RC16/RCP8

$\text{HOOC}(\text{CH}_2)_n\text{NH}-\text{CH}_2\text{CH}_2\text{CN} + \text{C}_6\text{H}_5\text{NH}_2 \rightarrow \text{HOOC}(\text{CH}_2)_n\text{NH}_2 + \text{C}_6\text{H}_5\text{NH}-\text{CH}_2\text{CH}_2\text{CN}$  is formed in this case. This compound also develops at the influence of aniline on cyanoethylated proteins and peptones (Ref.11). There are 2 tables and 16 references: 10 Soviet, 3 US, 1 German, and 2 British.

ASSOCIATION: Vil'nyusskiy gosudarstvennyy universitet; Kafedra organicheskoy khimii (Vil'nyus State University; Chair of Organic Chemistry)

SUBMITTED: September 11, 1958



S/079/60/030/04/61/080  
B001/B011

AUTHORS: Butskus, P. F., Denis, G. I.

TITLE: Decyanethylation of N-Cyanethylated α-Amino Acids and Their Derivatives

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1317-1321

TEXT: The present paper deals with the hitherto neglected investigation of the lability of the bond between the cyanethyl group and the nitrogen atoms in the N-cyanethylated α-amino acids and their derivatives (Refs. 1,2). De-cyanethylation was performed on some N-monocyanethyl- and N,N-dicyanethyl-α-amino acids, their esters, amides, hydrazides, N-monocyanethyl- and N,N-dicyanethyl glycyl glycine, N,N'-dicyanethyl-2,5-diketopiperazine. One of the two cyanethyl groups on the nitrogen atom is easily removable. It is split by heating dicyanethyl-α-amino acids with aqueous solutions of tertiary amines or with caustic soda (in an equimolecular ratio). The reaction occurs according to the scheme

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Decyanethylation of N-Cyanethylated  $\alpha$ -Amino Acids and Their DerivativesS/079/60/030/04/61/080  
B001/B011

$\text{HOOCCHN}(\text{CH}_2\text{CH}_2\text{CN})_2 \xrightarrow{\quad} \text{HOOCCHNH-CH}_2\text{CH}_2\text{CN} + \text{CH}_2=\text{CHCN}$  (R = H,  $\text{CH}_3$ ,  $\text{C}_2\text{H}_5$ ,  $\text{CH}(\text{CH}_3)_2$ ). When heating dicyanethylated amino acids with amino acids in the presence of lye, a rearrangement of the cyanethyl groups occurs. Since the cyanethylation of amino acids is a reversible reaction, a complete removal of the cyanethyl groups is possible in the monocyanethyl- and di-cyanethyl derivatives of  $\alpha$ -amino acids (Scheme 2). The yield of completely decyanethylated products attains 80%. Ammonia, hydrazine, dimethyl amine, diethyl amine, piperidine, methyl amine, ethyl amine, ethylene diamine are used as agents for this reaction. Good results are yielded on decyanethylation by a 2-10% aqueous ammonia solution. An increase in the ammonia concentration reduces the yield of decyanethylation products. When using a 10% aqueous ammonia solution, there also occurs a hydrolysis of the ester-, amide-, or hydrazide groups until a carboxyl group results. Thus, with two cyanethyl groups on the nitrogen atom, one appears to be particularly mobile. There are 3 tables and 11 references, 8 of which are Soviet.

ASSOCIATION: Vil'nyusskiy gosudarstvennyy universitet (Vil'nyus State Universitet)  
Card 2/3

S/079/60/030/04/62/080  
B001/B011

AUTHORS: Butskus, P. F., Denis, G. I.

TITLE: Decyanethylation and Re-cyanethylation of  $\beta$ -Alkoxy and  $\beta$ -Aryloxy Propionitrile

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1321-1325

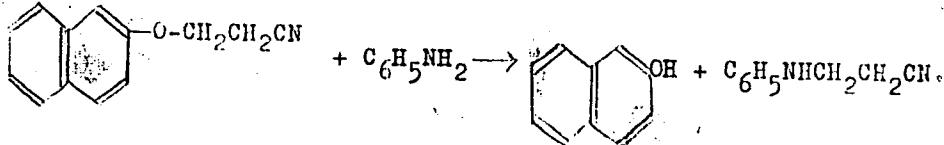
TEXT: In continuation of the previous paper (Ref. 1) concerning the reaction of aniline with  $\beta$ -methoxy and  $\beta$ -phenoxy propionitriles, giving rise to a rearrangement product,  $\beta$ -phenyl amino propionitrile, the authors of the present paper investigated the decyanethylation and recyanethylation of other  $\beta$ -alkoxy- and  $\beta$ -aryloxy propionitriles.  $\beta$ -phenyl amino propionitrile was obtained by the reaction of aniline with monocyanethyl derivatives of monovalent alcohols, with dicyanethyl derivatives of bivalent alcohols as well as with tricyanethyl glycerin. The reaction took place in an aqueous solution, in the presence of some caustic soda or triethyl amine (in one case also without alkaline agents). The cyanethyl rearrangement of monocyanethyl derivatives of o-, m-, and p-cresols,  $\alpha$ - and  $\beta$ -naphthols, as well as of the dicyanethyl derivatives of bivalent phenols (of pyrocatechin, resorcin, hydroquinone) is

Card 1/3

Decyanethylation and Re-cyanethylation of  $\beta$ -Alkoxy and  $\beta$ -Aryloxy Propionitrile

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the presence of aromatic amines, takes place also in an aqueous solution without alkali. In this connection, both the conversion product ( $\beta$ -phenyl amino propionitrile) and the decyanethylation products ( $\alpha$ - and  $\beta$ -naphthol as well as bivalent phenols) are separated; for an example, reaction in the case of  $\beta$ -cyanethyl ether of  $\beta$ -naphthol proceeds according to the scheme



Decyanethylation occurs on heating  $\beta$ -phenoxy propionitrile,  $\beta$ -cyanethyl ether of  $\alpha$ - and  $\beta$ -naphthol, as well as di- $\beta$ -cyanethyl ether of pyrocatechin, resorcin, and hydroquinone in 5% lye. Phenols occur as the products of decyanethylation. On heating  $\beta$ -cyanethyl ether of  $\beta$ -naphthol in benzene with lye, the cyanethyl group passes over from the oxygen atom to the carbon atom, under the formation of 1-( $\beta$ -cyanethyl)-naphthol-2 (Scheme 2). Heating of di- $\beta$ -cyanethyl ether of resorcin in methanol, in the presence of sodium alcoholate,

Card 2/3

Decyanethylation and Re-cyanethylation of  $\beta$ -  
Alkoxy and  $\beta$ -Aryloxy Propionitrile

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leads to the formation of 1-oxy-2-cyanethyl-3-cyanethoxy benzene (Scheme 3).  
There are 3 tables and 7 references, 5 of which are Soviet.

ASSOCIATION: Vil'nyusskiy gosudarstvennyy universitet (Vil'nyus State  
University)

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Card 3/3

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